

WHAT IS CLAIMED IS:

1. A walk-behind mower comprising:
  - a deck;
  - a handle fastened to the deck;
  - 5 a plurality of wheels associated with the deck;
  - a first electric motor operatively coupled with at least one of said wheels and being configured to rotate said coupled wheel;
  - an operator interface for receiving input from an operator;
  - an internal combustion engine associated with the deck and having a drive
  - 10 shaft;
  - a generator operatively coupled to the engine, the generator being configured to generate electrical power for use in operating the first electric motor; and
  - a motion controller configured to receive electrical power from the generator and for selectively directing the electrical power to the first electric motor in response
  - 15 to input at the operator interface.
2. The walk-behind mower of claim 1 wherein the generator is integral with the engine.
3. The walk-behind mower of claim 2 wherein the generator includes a rotor and a coil assembly, the rotor being rotationally movable with respect to the coil assembly, the rotor and coil assembly being at least partially integrated with the engine such that the rotational movement of the rotor provides sufficient inertia in the
- 5 engine to facilitate ongoing engine operation.

4. The walk-behind mower of claim 1 wherein the generator is separate from the engine.

5. The walk-behind mower of claim 1 further comprising a mowing blade.

6. The walk-behind mower of claim 5 further comprising a clutch, the clutch being operative to interface the drive shaft with the mowing blade, wherein the clutch is configured to selectively disengage the mowing blade from the drive shaft.

7. The walk-behind mower of claim 1 wherein two of said plurality of wheels are operatively coupled to the first electric motor, the first electric motor being configured to rotate said two coupled wheels.

8. The walk-behind mower of claim 1 wherein only one of said plurality of wheels is operatively coupled to the first electric motor, the first electric motor being configured to rotate said one coupled wheel.

9. The walk-behind mower of claim 8 further comprising a second electric motor, the second electric motor being operatively coupled with another of said plurality of wheels and being configured to rotate the another coupled wheel.

10. The walk-behind mower of claim 9 wherein the motion controller is further configured for selectively directing the electrical power to the second electric motor.

11. The walk-behind mower of claim 1 wherein the motion controller comprises a variable speed motor controller.

12. A mower having a hybrid propulsion system, the mower comprising:

a first drive wheel;

a second drive wheel;

a first electric motor operatively coupled with the first drive wheel and being  
5 configured to rotate the first drive wheel;

a second electric motor operatively coupled with the second drive wheel and  
being configured to rotate the second drive wheel;

an operator interface being configured to provide an operator with an ability to  
direct the operation of the first and second electric motors;

10 an internal combustion engine;

a generator operatively coupled to the engine, the generator being configured  
to generate electrical power for use in operating the first and second electric motors;  
and

a motion controller configured to receive electrical power from the generator  
15 and for independently operating each of the first and second electric motors in  
response to signals from the operator interface, wherein the independent operation of  
the first and second electric motors facilitates steering of the mower.

13. The mower of claim 12 wherein the generator is integral with the  
engine.

14. The walk-behind mower of claim 13 wherein the generator includes a  
rotor and a coil assembly, the rotor being rotationally movable with respect to the coil  
assembly, the rotor and coil assembly being at least partially integrated with the  
engine such that the rotational movement of the rotor provides sufficient inertia in the  
5 engine to facilitate ongoing engine operation.

15. The mower of claim 12 wherein the generator is separate from the engine.

16. The mower of claim 12 wherein the motion controller comprises first and second variable speed motor controllers.

17. The mower of claim 12 wherein the mower is a zero-turn radius mower.

18. The mower of claim 12 wherein the mower is a riding mower.

19. The mower of claim 12 wherein the mower is a walk-behind mower.

20. A power equipment apparatus having a hybrid propulsion system, the power equipment apparatus comprising:

a driven element;

an actuator operatively coupled to the driven element;

5 an operator interface for receiving input from an operator;

an internal combustion engine;

10 a generator having a rotor and a coil assembly, the rotor being rotationally movable with respect to the coil assembly, the rotor and coil assembly being at least partially integrated with the engine such that the rotational movement of the rotor provides sufficient inertia in the engine to facilitate ongoing engine operation, the generator being configured to generate electrical power for use in operating the actuator; and

15 a motion controller configured to receive electrical power from the generator and for selectively directing this electrical power to the actuator in response to input at the operator interface.

21. The power equipment apparatus of claim 20 wherein the driven element comprises a wheel.

22. The power equipment apparatus of claim 20 wherein the actuator comprises an electric motor.

23. The power equipment apparatus of claim 22 wherein the motion controller comprises a variable speed motor controller.

24. A walk-behind lawnmower comprising:

a handle fastened to a deck and supporting a drive lever;

a plurality of wheels associated with the deck, wherein at least one of said wheels is operatively coupled to a single electric motor configured to rotate said coupled wheel;

an internal combustion engine associated with the deck and having a drive shaft;

a mowing blade mechanically coupled to the drive shaft;

a generator operatively coupled to the engine, wherein the generator is at least partially integral with the engine and is configured to generate electrical power; and,

a motion controller configured to receive electrical power from the generator and to selectively facilitate provision of this electrical power to the electric motor in response to engagement by an operator of the drive lever.